Docket No. SYRTECH 5001-U

U.S. Application Serial No. 09/848,866 Response to Communication dated July 8, 2004 Communication mailed June 8, 2004

#### REMARKS/ARGUMENTS

The Examiner issued a restriction requirement alleging that the application claims eight groups of distinct species. Claims 1 and 52-57 were indicated as being generic. In the Communication, Examiner clarified to Applicants that they are required to elect a single species disclosed from among each of the eight groups of species. Applicants appreciate the Examiner's clarification and more fully address the restriction in this Amendment.

# (A) A type of determining molecular replacement solutions (Claims 2-12)

In regard to this group of claims, Applicants elect the species that involve comparing figures of merit calculated for the molecular replacement solutions (Claims 2-7). Claims 8-12 are withdrawn as being directed to the non-elected species pursuant to 37 C.F.R. 1.142(b).

# (B) A type of group of different biomolecular structures (Claims 13-20)

In regard to this group of claims, Applicants elect the species that involve a group of biomolecular structures that are structurally dissimilar (Claim 16). Claims 13 and 14 specify the quantity of biomolecular structures and thus define the size of the group as opposed to the type of the group. Applicants therefore submit that Claims 13 and 14 are not members of this species. Claims 15, 17, 18, 19 and 20 are withdrawn as being directed to the non-elected species pursuant to 37 C.F.R. 1.142(b).

# (C) A type of data produced from the comparison (Claims 21-25)

In regard to this group of claims, Applicants submit that all of the claims are directed to the same species, namely that the data produced identifies a subset of the best solutions. Claim 21 specifies that it is the top 35% and claims 22-25 specify that it is at least two or more standard deviations better than the average. Gaussian distributions are

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well known in the art and 2, 3, or more standard deviations have well recognized percentiles relative to the group from which the standard deviation is calculated.

The Examiner's attention is drawn to MPEP Section 806.04(f) which specifies that

Claims to be restricted to different species must be mutually exclusive. The general test as to when claims are restricted, respectively, to different species is the fact that one claim recites limitations which under the disclosure are found in a first species but not in a second, while the second claim recites limitations disclosed only for the second species and not the first. This is frequently expressed by saying that claims to be restricted to different species must recite the mutually exclusive characteristics of such species.

In view of the fact that 2, 3, or more standard deviations is included in the "top 35%" requirement of claim 21, the Examiner's restriction is not appropriate in this instance. The Examiner's reconsideration of this restriction is respectfully requested. If the Examiner desires to maintain this restriction, the Examiner is respectfully requested to contact the undersigned attorney to discuss and expedite resolution of this issue.

# (D) A type of criteria for selection of the group (Claims 27-34)

In regard to this group of claims, Applicants elect the species where "selection of members of the group of biomolecule structures is performed until a biomolecule structure is selected whose molecular replacement solution is at least \_\_\_\_\_ standard deviations better than the average molecular replacement solution for the biomolecule structures in the group." (Claims 31-34). Claims 27-30 are withdrawn as being directed to the non-elected species pursuant to 37 C.F.R. 1.142(b).

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## (E) A type of selection of the group (Claims 35-38)

In regard to this group of claims, Applicants elect the species where selection of the group of biomolecular structures at least partially based on sequence identity (Claims 36, 38). Claims 35 and 37 are withdrawn as being directed to the non-elected species pursuant to 37 C.F.R. 1.142(b).

# (F) A type of molecular replacement (Claims 39-41)

In regard to this group of claims, Applicants elect the species where molecular replacement is performed using EPMR (Claim 40). Claims 39 and 41 are withdrawn as being directed to the non-elected species pursuant to 37 C.F.R. 1.142(b).

#### (G) A type of biomolecule (Claims 42-47)

In regard to this group of claims, Applicants elect the species where the biomolecule is a protein (Claims 42, 45). Claims 43, 44, 46 and 47 are withdrawn as being directed to the non-elected species pursuant to 37 C.F.R. 1.142(b).

### (H) A type of crystal data (Claims 48-51)

In regard to this group of claims, Applicants elect the species that involve X-ray diffraction data (Claims 48). Claims 49-51 are withdrawn as being directed to the non-elected species pursuant to 37 C.F.R. 1.142(b).

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Pursuant to 37 C.F.R. § 1.142, Applicants elect the species of each group as indicated below. The claims directed to the non-elected species are withdrawn as being directed to the non-elected species pursuant to 37 C.F.R. 1.142(b). However, Applicants reserve the right pursuant to 37 C.F.R. § 1.141 to pursue claims to the non-elected species in this application in the event that a generic claim is found to be allowable.

Applicants also reserve the right pursuant to 35 U.S.C. § 121 to file one or more divisional applications directed to the non-elected species during the pendency of the present application.

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#### **CONCLUSION**

Applicants earnestly believe that they are entitled to a letters patent, and respectfully solicit the Examiner to expedite prosecution of this patent application to issuance. Should the Examiner have any questions, the Examiner is encouraged to telephone the undersigned.

> Respectfully submitted, Syrrx, Inc.

Dated: July 8, 2004

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